

# Work Order ID 83007

Thursday, April 12, 2012 11:17:28 AM

**\*83007\***

Page 1

Item ID: D3016-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Seat Frame Assembly  
 Start Date: 4/12/2012 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 4/24/2012 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: *[Signature]* Date: 12-04-12 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3016	RevA / DEO A-1								

100 Weld per dwg A/R 4130 rod Batch: M118875 0.00  
 Large Fab

**\*100\***

Large Fab

Large Fab

Memo

0.00

1-Cut all tubes as per Dwg D3016

2-Deburr

3-Assemble tubes, fittings and weld as per Dwg D3016 using welding jig  
 DT8597

4-Transfer drill holes from D3017-041 and D3021-041 in seat frame D3016-041

5- Assemble brackets and gusset per dwg and weld

0 EL 12-6-20

110 QC9- Inspect visual per QSI004- Fusion Welds 0.00

**\*110\***

QC

Quality Control

Memo

0.00

1 8 BE12-06-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Page 2

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Item ID: D3016-041 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Seat Frame Assembly  
 Start Date: 4/12/2012 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 4/24/2012 Req'd Qty: 1.00 \*1\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120	QC5- Inspect part completeness to step on W/O	0.00							
*120*									
QC	Memo	0.00							
Quality Control									

130	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
*130*									
Powdercoat	Memo	0.00							
Powder Coating	Install paint screws on fitting ends START TIME: 3:20 OVEN TEMPERATURE: 320 °F FINISH TIME: 3:30								

140	QC3- Inspect Part Finish	0.00							
*140*									
QC	Memo	0.00							
Quality Control									

M121279

IX ~~Ø~~ MZ 12/06/20

1 Ø 1410-620

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Identify as per dwg & Stock Location: <b>G-A</b>	0.00							
<b>*150*</b>									
Packaging	Memo <b>w/o</b>	0.00				<b>1x</b>			<b>12/6/12</b>
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
<b>*160*</b>									
QC	Memo	0.00							<b>12/6/25</b>
Quality Control									<b>MO 12104122</b>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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# Picklist Print

Thursday, April 12, 2012 11:17:33 AM

Page 1

Work Order ID: 83007

\*83007\*

Parent Item: D3016-041

\*D3016-041\*

Parent Item Name: Seat Frame Assembly

Start Date: 4/12/2012

Required Date: 4/24/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP A01.09.19New issueECIPP RevB: as per revB DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M4130NT0.750W.049

Purchased

No

100

f

125.6700

4.3

4.526316

\*M4130NT0 750W 049\*

\*\*

4.52 12-6-17

4130 RD Tube .750 x .049W

## Location

## Loc Qty

## Loc Code

MAT033

125.67

118772

13.04

120350

67.8

121025

44.83

M4130NT0.500W.049

Purchased

No

100

f

48.0000

4.3

4.526316

\*M4130NT0 500W 049\*

\*\*

4.52 12-6-17

4130 RD Tube .500 x .049W

## Location

## Loc Qty

## Loc Code

MAT032

48

121025

48

M4130NT1.000W.120

Purchased

No

100

f

66.1000

1.5

1.578947

\*M4130NT1 000W 120\*

\*\*

4.52 12-6-17

4130 RD Tube 1.00 x .120wall

## Location

## Loc Qty

## Loc Code

MAT033

66.1

117656

21.84

117973

44.26

1.57

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Parent Item: D3016-041

**\*D3016-041\***

Parent Item Name: Seat Frame Assembly

Start Date: 4/12/2012

Required Date: 4/24/2012

Start Qty: 1.00

Required Qty: 1.00

D3016-17	Manufactured	No	100	Each	24.0000	2	2
<b>*D3016-17*</b>						**	<u>EL 12-20</u>
Gusset							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

WA021	24	
70872	14	
70909	10	

D3016-13	Manufactured	No	100	Each	8.0000	2	2
<b>*D3016-13*</b>						**	<u>EL 12-20</u>
Bracket							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

WA021	8	
76567	8	

D3016-15	Manufactured	No	100	Each	10.0000	2	2
<b>*D3016-15*</b>						**	<u>EL 12-20</u>
Gusset							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

WA	9	
77579	9	
WA021	1	
73541	1	

D3020-1	Manufactured	No	100	Each	12.0000	4	4
<b>*D3020-1*</b>						**	<u>EL 12-6-79</u>
Fitting							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

WA021	12	
36713	1	
76579	11	

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**DART**

DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3016	REV. A SHEET 1 OF 3
DATE 01.05.18		TITLE SEAT FRAME ASSEMBLY	SCALE NTS
A	01.05.18	NEW ISSUE	

QTY	PART NUMBER	DESCRIPTION	MATERIAL
X	D3016-041	SEAT FRAME ASSEMBLY	N/A
1	D3016-1	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
2	D3016-3	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
1	D3016-5	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
2	D3016-7	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
1	D3016-9	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-11	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-13	BRACKET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-15	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-17	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
2	D3020-1	FITTING	N/A

**NOTES**

- 1) WELD PER DART QSI 004
- 2) ON SHEET METAL PARTS, BREAK ALL UNMARKED CORNERS 0.020-0.040
- 3) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY  
RETURN TO  
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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 83007

*rd/b-0412* **DEO ATTACHED**

**RELEASED**  
01.05.30

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

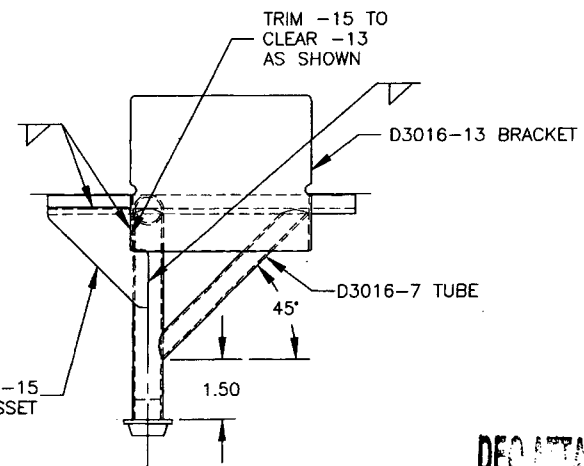
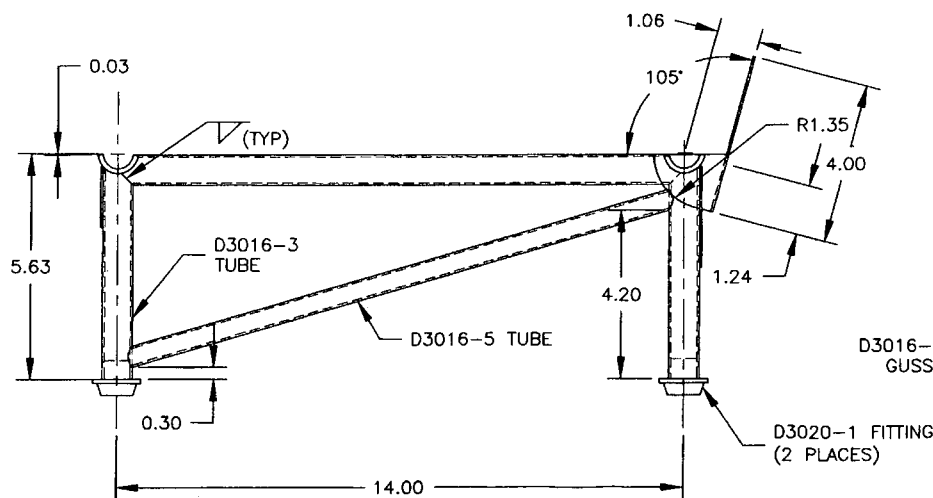
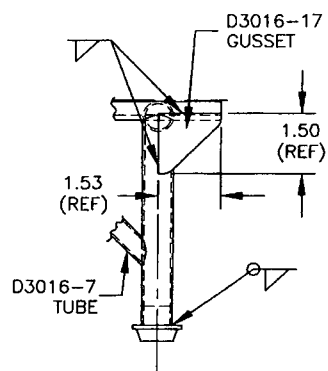
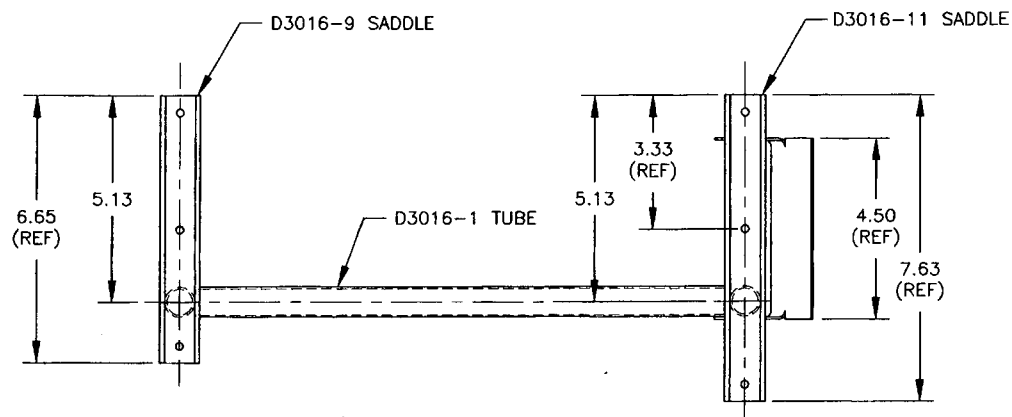
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# D3016-041 SEAT FRAME ASSEMBLY

83007



DETACHED  
RELEASED  
01.05.30

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THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		CHECKED #	APPROVED #	DRAWING NO. D3016	REV. A SHEET 2 OF 3
DATE 01.05.18		TITLE SEAT FRAME ASSEMBLY		SCALE 1:3	

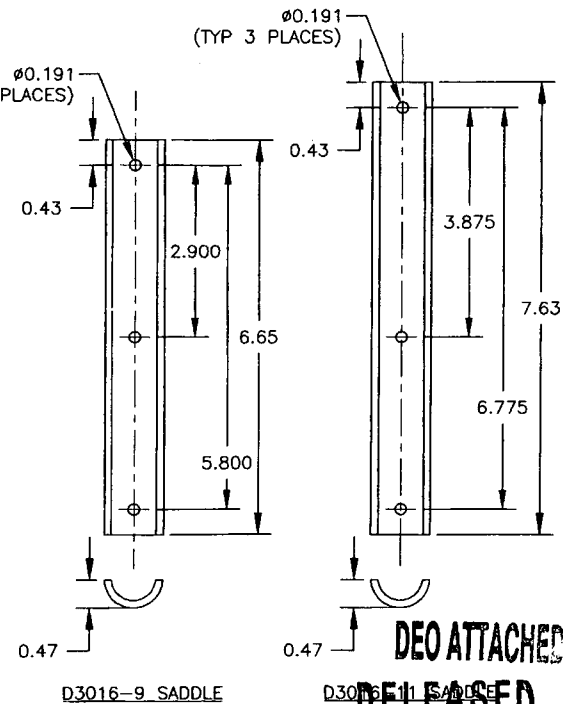
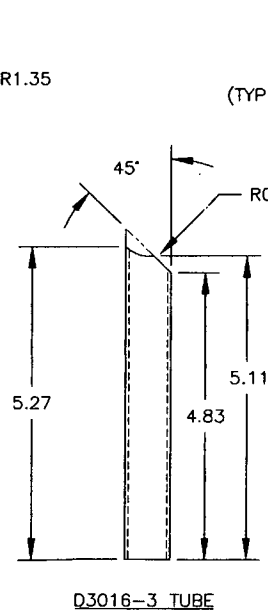
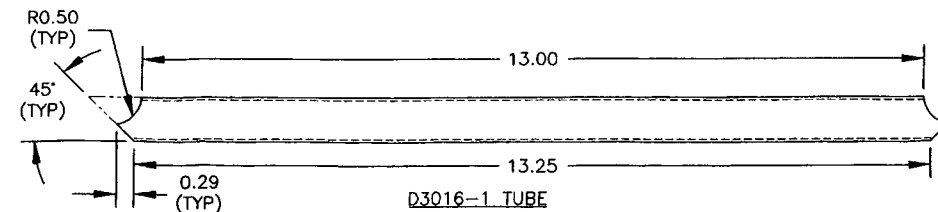
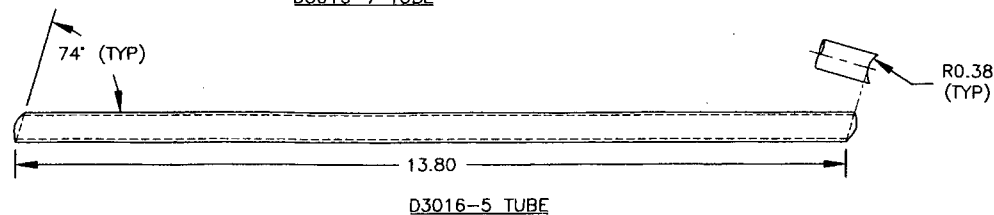
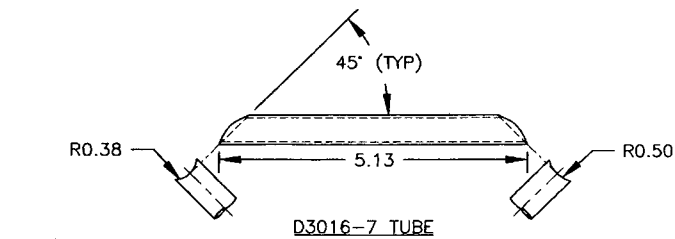
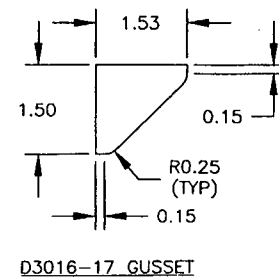
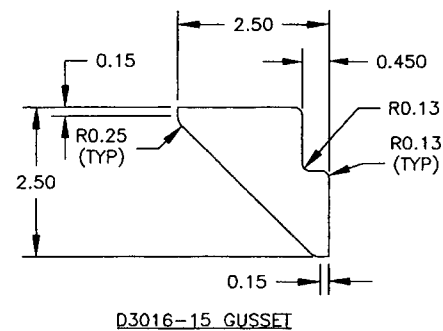
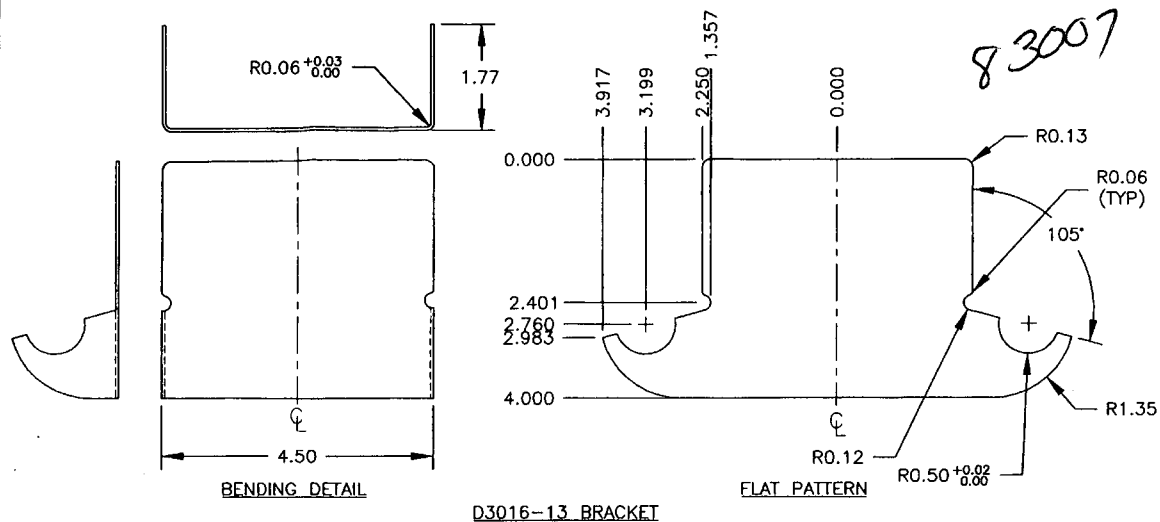
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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DEO ATTACHED  
RELEASED  
9.05.30 98

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DESIGN CP	DRAWN BY CP	<b>DART</b>	DART AEROSPACE LTD. HARRISBURG, ONTARIO, CANADA
CHECKED #	APPROVED #	DRAWING NO. D3016	REV. A SHEET 3 OF 3
DATE 01.05.18	TITLE SEAT FRAME ASSEMBLY	SCALE 1:2	

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
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DRAWING NO. D3016	TITLE SEAT FRAME ASSEMBLY	REV. A	<b>DART AEROSPACE LTD ENGINEERING ORDER</b>	D.E.O. NO. D3016-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <b>1</b>	CHECKED <b>UP</b>	MFG. APPR. <b>R</b>	APPROVED <b>MAP</b>	DE APPR. <b>---</b>		
DATE 10.01.29	DATE 10.01.29	DATE 10.01.29	DATE 10.01.29	DATE 10.01.29		

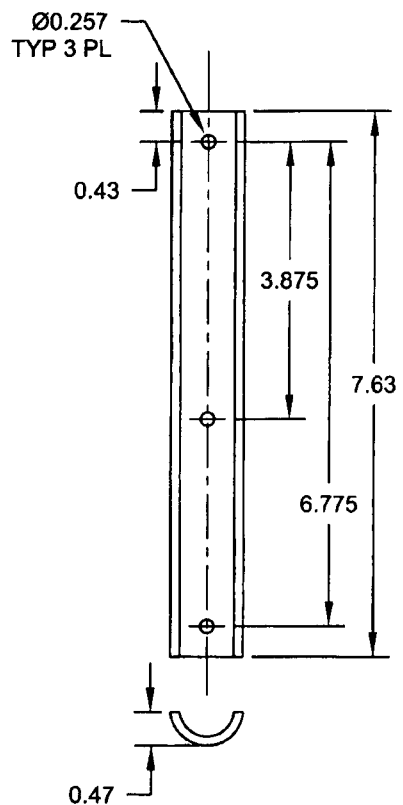
**PURPOSE:**

TO REVISE D3016-11 SADDLE'S HOLE SIZES

**CHANGE:**

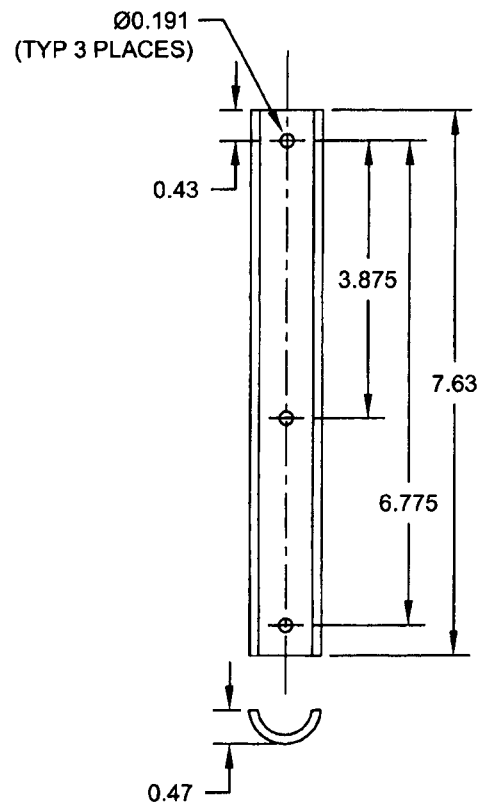
DETAIL D3016-11 SADDLE (SHEET 3): Ø0.257 TYP 3 PL WAS Ø0.191 (TYP 3 PLACES) AS SHOWN:

**IS:**



**D3016-11 SADDLE**

**WAS:**



**D3016-11 SADDLE**

W/O:		WORK ORDER CHANGES					
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